IN THE CLAIMS

Please amend the following claims.

1. (Currently Amended) A method for controlling a photoresist layer above a substrate comprising:

forming, exposing, and developing a ~~the~~ photoresist layer forming at least one opening having a first dimension;

exposing the photoresist layer with the at least one opening to a solvent, wherein exposing the photoresist layer with the at least one opening to a solvent causes a mitigation of bulk expansion of the photoresist layer during reflow; and

heating the photoresist layer with the at least one opening, after exposing the photoresist layer to the solvent, to achieve a thermal reflow of the photoresist layer to modify the dimension of the at least one opening in the photoresist layer.

2. (Original) The method of claim 1 wherein the solvent is a gas, vapor, mist, or liquid.

3. (Cancel)

4. (Currently Amended) The method of claim 1 wherein heating the photoresist layer with the at least one opening to achieve a thermal reflow controls the formation of a critical dimension that is less than ~~then~~ the resolution of a lithographic tool set.

5. (Currently Amended) The method of claim 1 wherein heating the photoresist layer with the at least one opening to achieve a thermal reflow controls the formation of a critical dimension that is less than ~~then~~ the fundamental resolution of the photoresist layer.

6. (Original) The method of claim 1 wherein controlling the heating of the photoresist layer to modify the dimension of the at least one opening in the photoresist layer decreases the dimension of the opening in the photoresist layer.

7. (Currently Amended) A method for controlling a photoresist layer above a substrate comprising:

forming, exposing, and developing the photoresist layer forming at least one opening having a first dimension;

exposing the photoresist layer with the at least one opening to a solvent; wherein exposing the photoresist layer with the at least one opening to a solvent causes a mitigation of bulk expansion of the photoresist layer during reflow; and

heating the photoresist layer with the at least one opening, after exposing the photoresist layer to the solvent, to achieve a thermal reflow of the photoresist layer to decrease the dimension of the at least one opening in the photoresist layer.

8. (Original) The method of claim 7 wherein the solvent is a surfactant.

9. (Original) The method of claim 7 wherein the solvent is ~~a~~ selected from the group glycerol monstearate, polyoxyethylene cetyl ether, and 9-octadecenoic acid.

10. (Original) The method of claim 7 wherein the solvent is a relatively low polarity solvent.

11. (Original) The method of claim 10 wherein the solvent is ~~a~~ selected from the group dichloro-methane, acetonitrile, and isopropanol.

12. (Original) The method of claim 7 wherein the solvent is a low-molecular weight polymer.

13. (Original) The method of claim 12 wherein the solvent is ~~a~~ selected from the group Teflon, polystyrene, and polyethylene.

14. (Original) The method of claim 7 wherein the solvent is a gas or vapor.

15. (Original) The method of claim 14 wherein the photoresist layer with the at least one opening is exposed to a solvent for between 30 seconds and 2 minutes prior to heating the photoresist to reflow.

16. (Original) The method of claim 14 wherein the exposure is approximately at room temperature.

17. (Original) The method of claim 14 wherein the solvent is a Propylene Glycol Monomethyl Ether Acetate (PGMEA) solvent.

18. (Original) The method of claim 14 wherein the gas solvent is implemented by bubbling N2 through the liquid solvent at a flow rate of approximately 3 liters per minute, at room temperature, for between 30 seconds to 2 minutes.

19. (Original) The method of claim 7 wherein the solvent is a liquid.

20. (Original) The method of claim7 wherein the photoresist layer with the at least one opening is exposed to a solvent for between 30 seconds and 2 minutes prior to heating the photoresist to reflow.

21. (Original) The method of claim 20 wherein the solvent is dissolved at a 0.1 to 3 percent (%) concentration.

22. (Original) The method of claim 20 wherein the solvent is dissolved into a secondary liquid in which the resist film is not soluble.

23. (Original) The process of claim 7 wherein controlling the heating is performed at a temperature between 125 to 175 degrees Centigrade.

24. (Original) The process of claim 7 wherein controlling the heating is performed for 60 to 90 seconds.

25. (Original) The process of claim 7 wherein controlling the heating controls the formation of a photoresist layer critical dimension.

26. (Currently Amended) A substrate having an etched feature having been formed by a process comprising:

forming, exposing, and developing a photoresist layer above a substrate forming at least one opening having a first dimension;

exposing the photoresist layer with at least one opening to a solvent wherein exposing the photoresist layer with the at least one opening to a solvent causes a mitigation of bulk expansion of the photoresist layer during reflow; and

heating the photoresist layer with the at least one opening, after exposing the photoresist layer to the solvent, to achieve a thermal reflow of the photoresist layer;

and subjecting the photoresist layer with at least one opening to an etch process, subsequently forming an integrated circuit feature.

27. (Currently Amended) The solvent of claim 26 wherein the solvent is a surfactant~~,~~ relatively low polarity solvent, or a low-molecular weight polymer.

28. (Original) The solvent of claim 26 wherein the solvent is a Propylene Glycol Monomethyl Ether Acetate (PGMEA) solvent.

29. (Original) The heating the photoresist layer with the at least one opening of claim 26 wherein heating the photoresist layer with the at least one opening to achieve a thermal reflow controls the formation of an etch ready critical dimension.

30. (Currently Amended) The heating the photoresist layer with the at least one opening of claim 26 wherein heating the photoresist layer with the at least one opening to achieve a thermal reflow controls the formation of an etch ready critical dimension that is less than ~~then~~ the resolution of a lithographic tool set.

31. (Original) The heating the photoresist layer with the at least one opening of claim 26 wherein heating the photoresist layer with the at least one opening to achieve a thermal reflow controls the formation of an etch ready critical dimension that is less than the fundamental resolution of the photoresist layer.